



North Carolina Department of Environment and Natural Resources  
Division of Waste Management

Beverly Eaves Perdue  
Governor

Dexter R. Matthews  
Director

Dee Freeman  
Secretary

July 15, 2010

Mr. Edwin M. Sullivan, P.E.  
Duke Energy  
Post Office Box 1006  
Charlotte, North Carolina 28201-1006

**Re: Alternative Cover Material Demonstration Authorization Letter  
Allen Steam Station, Retired Ash Basin (RAB) - Ash Landfill, Permit #36-12  
Proposed ACM: Gorilla Snot**

Dear Mr. Sullivan:

This letter is in response to your request for approval to demonstrate the capability of an Alternative Cover Material (ACM) at the referenced landfill. This Authorization Letter conditionally approves the Demonstration Project as described in the letter submitted by Duke Energy dated April 21, 2010, for a period of Eight (8) months. This period of time provides the operator with six (6) months of time to perform the Demonstration Project, and 60 calendar days to compile and submit the certified Demonstration Report to the Solid Waste Section for review. The demonstration period will expire on January 17, 2011.

The Operator must demonstrate that the ACM will control disease vectors, fires, odor, blowing litter, and scavenging without presenting a threat to human health and the environment.

The demonstration period does not allow for or give exemption to the requirement for weekly cover as outlined in the approved plan for the facility. If the use of the product is not sufficient for weekly cover, it should not be used. It is the operator's responsibility to ensure an adequate cover is being provided. The use of the ACM must be discontinued if it does not perform as well as soil in the areas of fire prevention, vector control, blowing waste prevention, odors, and scavenging.

For this demonstration, stability analyses must be performed to establish shear strength and overall stability of the waste once the proposed alternative cover has been applied. The results of any stability analyses must be kept on site during the demonstration period. The application area for this demonstration shall not exceed one-half acre in size. Duke Energy may ask for an increase in application area once supporting data has been produced that the proposed alternative cover is adequate to allow for a larger area of application.

The "Request for Landfill Alternate Daily Cover Demonstration" submitted by Duke Energy indicated that a dye was to be used with the application of the proposed alternative cover material. No supporting documentation was provided for the chemical make-up of this material. Therefore, the use of dye is not approved for this demonstration project.

After six (6) months of using the conditionally approved ACM, the facility operator may then either:

- (1) within 60 calendar days provide a certified Demonstration Report demonstrating the feasibility to request approval for the use of the ACM on a full-time basis, or
- (2) cease use of the ACM, properly dispose of any remaining ACM, and provide a Closure Letter detailing the findings of the use of the material during the approval period and what actions were taken to dispose of the material.

The certified Demonstration Project report must be signed by the operator and certified by a professional engineer licensed in North Carolina. The report shall include documentation addressing the performance and effectiveness of the material, the number of times the ACM was used, the quantities of the ACM, stability analyses, and other supportive information, including photographs.

Following satisfactory demonstration of the ACM and application, the Solid Waste Section may issue a Permit Modification for the facility that includes the ACM operation.

Please note that the continuation of the use of this ACM is performance based. Should the application of the ACM become impracticable or contribute to conditions hazardous to public health, safety or the environment, the operator is responsible for immediately terminating the ACM use and applying compacted earthen material cover in accordance with the approved operations plan for the facility. Impracticable conditions are conditions that make the placement of ACM difficult due to adverse climate such as rain, wind, or frozen precipitation, or other conditions that adversely affects the ability of the ACM to meet the Performance Standards. The operator must maintain a ready stockpile of earthen material cover material and the equipment necessary to apply the earthen material cover to respond to an adverse situation. Therefore, approval of the continued use of the ACM may be revoked at any point in time by the Division.

Please notify me when the demonstration project begins. If you have any questions, please call me at (704) 235-2144 at the Mooresville Regional Office.

Sincerely,



Charles T. Gerstell  
Environmental Senior Specialist  
Solid Waste Section

Cc: Deborah Aja, Western District Supervisor  
Larry Frost, Regional Permitting Engineer